

WHAT IS CLAIMED IS:

1. A chemical mechanical polishing system, comprising:

a platen having a first surface coupling a polishing pad thereto, the first surface comprising a generally circular center portion and an annular portion surrounding the generally circular center portion;

the generally circular center portion enclosing an area and having an attachment surface area that is less than the area enclosed by the generally circular center portion, the attachment surface area coupling an inner portion of the polishing pad to the platen.

2. The system of Claim 1, wherein the attachment surface area is between approximately 30% and 70% of the area.

3. The system of Claim 1, wherein the attachment surface area is approximately 50% of the area.

4. The system of Claim 1, wherein the generally circular center portion is defined by a plurality of grooves formed in the first surface.

5. The system of Claim 4, wherein a configuration of the grooves is selected from the group consisting of parallel, hatched, criss-crossed, concentric, spiral, and random.

6. The system of Claim 1, wherein a depth of grooves is approximately fifteen to twenty mils.

7. The system of Claim 1, wherein a width of grooves is approximately one millimeter and a centerline spacing between grooves is approximately one millimeter.

8. The system of Claim 1, wherein the generally circular center portion is defined by a textured surface selected from the group consisting of a dimpled surface and a brushed surface.

5 9. The system of Claim 1, further comprising a coating disposed outwardly from the first surface.

10. The system of Claim 1, wherein the platen is formed from stainless steel.

11. A chemical mechanical polishing system, comprising:

a platen having a first surface, the first surface comprising a generally circular center portion and an annular portion surrounding the generally circular center portion;

5 the generally circular center portion having a first coating disposed outwardly therefrom, the first coating having a low surface wetting coefficient; and

the annular portion having a second coating disposed outwardly therefrom, the second coating having a high surface wetting coefficient.

10

12. The system of Claim 11, wherein the low surface wetting coefficient of the first coating is approximately one-half of the high surface wetting coefficient of the second coating.

15

13. The system of Claim 11, wherein the annular portion has a width between approximately one-half inch and approximately one inch.

14. The system of Claim 11, wherein the first and second coatings each have a thickness of between approximately ten mils and approximately twenty mils.

20

15. The system of Claim 11, wherein the first and second coatings are each formed from a fluoropolymer.

16. The system of Claim 15, wherein the first coating is formed from Teflon[®] and the second coating is formed from Halar[®].

25

17. A chemical mechanical polishing system, comprising:

a platen for coupling a polishing pad thereto, the platen having a first surface comprising a generally circular center portion and an annular portion surrounding the generally circular center portion;

5 the generally circular center portion enclosing an area and having a first attachment surface area that is between approximately 30% and 70% of the area enclosed by the generally circular center portion, the first attachment surface area adapted to couple an inner portion of the polishing pad to the platen;

10 the generally circular center portion having a first fluoropolymer coating disposed outwardly therefrom, the first fluoropolymer coating having a low surface wetting coefficient;

the annular portion having a second attachment surface area adapted to couple an outer portion of the polishing pad to the platen, the annular portion
15 having a width between approximately one-half inch and approximately one inch;

the annular portion having a second fluoropolymer coating disposed outwardly therefrom, the second fluoropolymer coating having a high surface wetting coefficient; and

20 wherein the first and second fluoropolymer coatings each have a thickness of between approximately ten mils and approximately twenty mils.

18. The system of Claim 17, wherein the generally circular center portion is defined by a plurality of grooves formed in the first surface, a configuration of the
25 grooves selected from the group consisting of parallel, hatched, criss-crossed, concentric, spiral, and random.

19. The system of Claim 17, wherein a depth of grooves is approximately fifteen to twenty mils, a width of grooves is approximately one millimeter, and a
30 centerline spacing between grooves is approximately one millimeter.

20. The system of Claim 17, wherein the generally circular center portion is defined by a textured surface selected from the group consisting of a dimpled surface and a brushed surface.